

ROZENFEL'D, B.

From the translator. Ist.-mat. issl. no.6:11-13 '53. (MLBA 7:9)
(Omar Khayyam)

Rezerfel'd, B. A.

MS

The mathematical treatises of Omar Khayyam. Istor.-
Mat. Issled. 6, 9-112 (1953). (Russian)
Rozerfel'd, B. A., and Yuškevič, A. P. Notes to the
mathematical treatises of Omar Khayyam. Istor.-
Mat. Issled. 6, 113-172 (1953). (Russian)

I - F/W

These two papers are respectively Russian translations from the Arabic and commentaries to (1) Khayyam's treatise on the solution of the cubic by intersecting conics, (2) his work on the postulates of Euclid, and (3) a short tract applying the classical Archimedean method of determining the proportion of gold and silver in an alloy of the two.

For (1) the translator used the text established by Woepcke and published with the French translation of 1851 [Omar Alkhayyām, Duprat, Paris]. He remarks the translation into English by Kasir [Columbia Univ., 1931], but does not mention the more recent one of Winter and 'Arafat [J. Roy. Asiatic Soc. Bengal. Sci. 16, 27-77 (1950); MR 13, 809]. The four versions differ only in insignificant details.

The original of (2) is a work in three parts composed in 1077. The translator used the edition of T. Erani [Sirousse, Teheran, 1936, with Persian and Arabic introductions]

(S. L. A.)

(2)

OMAR KHAYYAM

based on a presumably unique Leyden manuscript. However a second copy, in the library of the Sepahsalar Mosque of Teheran, was utilized by D. E. Smith [Scripta Math. 3, 5-10 (1935)] who noted that the first part of (2) is an attempt to prove the postulate of parallels, and that it was Khayyam and not Saccheri who initiated the study of the "birectangular quadrilateral". The second and third parts of (2) [also studied by Plooi, Thesis, Univ. of Leiden, 1950; MR 15, 383] are a criticism of the euclidean definitions of ratio and proportion. As an alternative Khayyam defines both in terms of sequences obtained by application of the euclidean algorithm. Thus (2) is a welcome addition to the scanty material in European languages on medieval Islamic work in the foundations of mathematics. *SMW*

E. S. Kennedy (Beirut).

ROZENFEL'D, B. A.

V
15 The mathematical treatises of Džemsid Gijaseddin Kašī
Istor.-Mat. Issled. 7, 9-379 (1954). (Russian)

1 - F/W

Yuškevič, A. P., and Rozenfel'd, B. A. Commentary on
the mathematical treatises of Džemsid Gijaseddin
Kašī. Istor.-Mat. Issled. 7, 380-449 (1954). (Russian)

These two works together comprise a translation into
Russian and a commentary on two books written by
Jamshid Ghiāth al-Din al-Kāshānī or al-Kāshī (fl. 1420)
who worked in Iran and Turkistan. The publication does
not give the Arabic text, but facsimiles of numerous
manuscript pages have been included.

The first translation is of "The key to arithmetic" a
work already extensively studied by Luckey in two
publications [Math. Ann. 120, 217-274 (1948); Die Rechen-
kunst bei Gamsid b. Mas'ūd al-Kāshī ... Deutsche Mor-
genländische Gesellschaft, Steiner, Wiesbaden, 1951;
MR 9, 484; 13, 611]. Thus the main interest of the Russian
translation lies in those sections not dealt with by Luckey.
These are in large part a number of worked examples in
which the newly invented decimal fractions are freely
and adeptly applied. Topics touched on include the
mensuration of plane figures, solids, regular and semi-
regular polyhedra; layouts and area computations for

(over)

②

Yusufzade, P. P. and Nagentsev, B. A.

various arches and other architectural forms; operations with polynomials of arbitrary degrees; diophantine and inheritance problems.

On page 397 a line of characters printed upside down may prove confusing to readers not familiar with the Arabic sexagesimal numerals.

Of the many manuscripts extant (including one in the uncataloged Garrett collection at Princeton), the translator used the Leningrad and Berlin copies. No mention is made of the Tehran lithograph edition of 1889.

The second translation is of the "Treatise on the circumference", a computation yielding an approximation to 2π to ten sexagesimal places. A critical edition of this work with a German translation has recently been published [Abh. Deutsch. Akad. Wiss. Berlin. Kl. Math. Nat. 1950, no. 6 (1953); MR 14, 1051]. E. S. Kennedy.

2/2

Small
R24

ROZENFEL'D, B.A.

Some geometric properties of wave fields. Dokl. AN Azerb. SSR
10 no.8:533-536 '54. (MLRA 8:10)

1. Azerbaydzhanskiy gosudarstvennyy universitet im. S.M.Kirova.
Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhans-
skoy SSR I.G.Yes'manom.

(Wave mechanics)

ROZENFEL'D, B. A.

The compact simple E_6 group as a group of movements of a complex octavic non-Euclidian plane. Dokl. AN Azerb. SSR 10 no.12:829-833 '54. (MIRA 8:10)

1. Azerbaydzhanskiy gosudarstvennyy universitet im. S.M.Kirova. Predstavleno deystvitel'nyy chlenom Akademii nauk Azerbaydzhanskoy SSR I.G.Yes'manom.

(Groups, Theory of)

ROZENFELD B A

✓ ★ Rozenfel'd, B. A. Neeuklidovy geometrii. [Non-Euclidean geometries.] Gosudarstv. Izdat. Tehn.-Teor. Lit., Moscow, 1955. 744 pp. 26.75 rubles.

This is a veritable encyclopedia of the algebraic-group-theoretical aspect of non-Euclidean geometry and as such extremely useful. According to the preface the book is also intended for reading through, but this seems to the reviewer an impossible undertaking, in particular because the author excels in thoroughness rather than elegance. Formulae covering a quarter of a page are frequent, and there are some filling an entire page.

The book begins with an axiomatic introduction to Euclidean geometry as a finite-dimensional vector space with a positive definite inner product. It then passes to a coordinate space $(x^1, \dots, x^n)$ with coordinate convergence as topology, but an inner product of the form

$$(x, x) = -(x^1)^2 - (x^2)^2 - \dots - (x^l)^2 + (x^{l+1})^2 + \dots + (x^n)^2,$$

which is denoted by ${}^{++(l)}R_n$, by R_n for $l=0$ and by R_n for $l=d=0$. For complex x notations like $R_n(i)$ are used. After a brief introduction to Lie groups we find a detailed discussion (about 60 pages) of motions, in particular of the rotations and involutonic motions of R_n and $R_n(i)$.

(over)

4

1 - F/7

3000

Chapter II first derives the trigonometry on a hypersphere in R_n , which is shown to be, topologically, the product of an R_1 and a hypersphere in R_{n-1} . Identification of diametrically opposite points of a hypersphere in R_{n+1} leads to the n -dimensional non-Euclidean geometry 1S_n ; in particular, S_n is an elliptic and 1S_n a hyperbolic space. After discussing the properties of S_n and 1S_n , the motions of 1S_n are studied in detail (about 50 pages). The chapter ends with a history of non-Euclidean geometry, which is interesting because it includes the contributions of Omar Khayam and of Nasir-ad-din at-Tusi, an Azerbaidjan mathematician of the 13th century. The author is (throughout the book) very fair in priority questions, but takes at times a militantly materialistic point of view in motivating discoveries.

Chapter III deals with the relations of non-Euclidean to projective geometry, including the symplectic spaces. The central point is an exhaustive study of projectivities. It is shown that the projective geometry of P_n with the linear line complex as basic element becomes the geometry of 1S_n and that the group of symplectic transformations of the three-dimensional symplectic space is isomorphic to the group of motions of 1S_3 . Chapter IV treats conformal geometry, in particular the relations between the points of ${}^1S_{n+1}$ and the hyperspheres of the conformal space 1C_n .

by means of Klein's polyspherical coordinates (a generalization of Darboux's pentaspherical coordinates). Of course, Poincaré's interpretation of non-Euclidean geometry appears in a duly general setting.

The fifth chapter deals with spinor representations of the motions of non-Euclidean spaces and contains much material which is due to the author. It contains in particular a detailed theory of alterions, i.e. real algebras A_n of rank 2^{n-1} whose base consists of a unit 1, of elements $e_1, \dots, e_{n-1}$ and all products $e_{i_1} \dots e_{i_l}$ with $e_i e_j = -e_j e_i$ and $e_i^2 = -\epsilon_i$, where $\epsilon_i = \pm 1$ and l is the number of -1 's among the e_i . A complete list of the matrix algebras to which the various A_n are isomorphic is given. The spinor groups are defined as certain subgroups of alterion algebras, but their definition as well as their interpretation as groups of motions of non-Euclidean geometries are much too involved for a review. Special topics are the triality principle in seven-dimensional Euclidean spaces and their relation to the octaves (=Cayley numbers) and antioctaves.

(over)

K. O. Y. / 11, R. P.

The sixth chapter studies affine, projective, Euclidean, and non-Euclidean spaces over algebras other than the real numbers, in particular over the complex numbers, the dual numbers, the quaternions and antiquaternions, again with such a wealth of details, that they cannot even be indicated here. It concludes with a discussion of the projective plane of the octaves and antioctaves.

The last chapter reports on, rather than treats in detail, the relations of the foregoing material to Riemannian geometry, first on the spaces of constant curvature, and then on the geometry of simple Lie groups and their relations to symmetric spaces.

H. Busemann.

RDW

ROZENFEL'D, B.A. (Baku)

Geometry of simple Lie's groups as non-Euclidean geometry. Uch.zap.
Kaz.un. 115 no.10:7-8 '55. (MLRA 10:5)
(Geometry, Modern)

AL-KASHI, Dzhemshid Giyaseddin [Al-Kāshī, Jamshid Ben Mas'ūd]; ROZENFEL'D, B.A. [translator]; SEGAL', V.S., redaktor; YUSHKEVICH, A.P., redaktor; RAZUMOVSKAYA, A.P., redaktor; MURASHOVA, N.Ya., tekhnicheskii redaktor

[Key to arithmetic. Treatise on the circumference. With a supplement containing the Arabic manuscripts of both treatises, Translated from the Arabic] Kliuch arifmetiki. Traktat ob okruzhnosti. Perevod s arabskogo B.A.Rozenfel'da. Red. V.S.Segalia i A.P.IUshkevicha. Kommentarii A.P.IUshkevicha i B.A.Rozenfel'da. S prilozheniem reproduksii arabskikh rukopisei oboikh traktatov. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 566 p. (MIRA 10:7)
(Geometry, Plane)

ROZENFEL'D, B. A.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress*(Cont.) Moscow,
Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Pogorelov, A. V. (Khar'kov). The Surfaces of Bounded Exterior
Curvature. 163

Poznyak, E. G. (Moscow). Approximation of Infinitely
Small Deformations for Spaces of Zero Curvature. 163-164

Reshetnyak, Yu. G. Integral-geometric Method of the
Theory of Curves. 164

Reshetnyak, Yu. G. (Leningrad). Integration on Convex
Polyhedron, and Some Questions Relating to the Theory
of Linear Inequalities. 164-165

Rozenfel'd, B. A. (Moscow). Non-Euclidian Geometry
and Simple Lie Groups. 165

Rybakov, V. N. (Moscow). Congruence Ruled Surfaces G,
and G Bundles on Surfaces. 165-166

Card 53/80

ROZENFEL'D, B. A.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V.1., Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp. Petrosoyan, G. B. (Yerevan). The Mathematical Works of Nikolay Artavazd. 232-233

Mention is made of Shirokatsi, Anania and Artavazd, Levon.

Rayk, A. Ye. (Saransk). Recent Reconstructions of Certain Problems From Ancient Egyptian and Babylonian Texts. 233-234

Rozenfel'd, B. A. (Moscow). The History of Lobachevskiy's Geometry Interpretations. 234

Mention is made of Kotel'nikov.

Rossinskiy, S. D. (Moscow). K. M. Peterson, Creator of the Moscow School of Differential Geometry. 234-235

There are 2 references, both of them USSR.

Rybkin, G. F. (Moscow). New Biographical Materials on N. I. Lobachevskiy. 235
Card 79/80

*

ROZENFEL'D, B.A.

Interpretation of Lobachevskii's geometry. Ist.-mat.issl. no.9:169-208
'56. (Geometry. Non-Euclidean) (MLRA 9:9)

ROZENFEL'D B.A.

SUBJECT USSR/MATHEMATICS/History of mathematics CARD 1/1 PG - 605
 AUTHOR ROZENFEL'D B.A.
 TITLE Aleksander Petrovič KOTEL'NIKOV.
 PERIODICAL Istoriko-mat. Issledovaniia 2, 317-400 (1956)
 reviewed 2/1957

Aleksander Petrovič Kotel'nikov lived from 1865 to 1944. In Kazan he was born as a son of the known professor of mathematics and mechanics Pet. Ivanovič Kotel'nikov (1809-1879). The younger Kotel'nikov studied in Kazan and he worked in Kiev and then again in Kazan and again in Kiev as professor of mathematics and mechanics. From 1924 until his death he was professor of higher mechanics in Moscow. His small literature contains greater lectures, especially on analytic geometry, theory of screws, non-Euclidean geometry and mechanics. After an extended bibliography in the present paper in text-book-like detail the author represents the domains treated by Kotel'nikov with predilection (with historical documents). These are chiefly the Ball's theory of screws and the application of the different kinds of quaternions in geometry and mechanics. Finally the pupils of Kotel'nikov are mentioned too. The most important of them was the tensor analytician Peter Alex. Širokov (1895-1944).

Rozenfel'd, B. A.; and Levinov, A. M. Application of
non-Euclidean geometry to certain problems of projec-
tive geometry. Trudy Sem Vektor Tenzor Anal 10
(1964) 24-27 (Russian)

As is well known the first theorems of projective geometry were obtained by considering those properties of Euclidean geometry which remain invariant under central projection. Afterwards non-euclidean geometry was shown to be a special interpretation of projective geometry with respect to an absolute quadric. In the present paper the authors derive a series of theorems on projective geometry starting from the fact that a quadric

$$x_0^2 + x_1^2 + x_2^2 + x_3^2 + x_4^2 + x_5^2 = 0$$

can be considered as the locus of points having the same distance from mutually complete polar primes, when $x_0^2 + x_1^2 + x_2^2 + x_3^2 + x_4^2 + x_5^2 = 0$ is the absolute quadric.

E. M. Bruins (Amsterdam).

ROZENFEL'D, B.A.

"Linear algebra and projective geometry." R.Baer. [Translated from
the English by E.G.Shul'geifer]. Reviewed by B.A.Rezenfel'd. Usp.
mat.nauk 11 no.3:231-234 My-Je '56. (MLRA 9:9)
(Geometry, Projective)(Transformations (Mathematics))(Baer, Reinhold,
1902-)

Rozenfeld, B. A.

Rozenfel'd, B. A. Geometrical interpretation of compact simple Lie groups of class E . Dokl. Akad. Nauk SSSR (N.S.) 106 (1956) 600-603. (Russian)

The author announces a geometrical interpretation of the compact exceptional Lie groups E_6, E_7, E_8 . To this end the author constructs "elliptic planes" over the algebras $K \otimes O, Q \otimes O, O \otimes O$, where, K, Q, O denote the algebras of complex numbers, quaternions, Cayley numbers. The main result is that E_6, E_7, E_8 may be interpreted as groups of motions of the elliptic planes over $K \otimes O, Q \otimes O$ and $O \otimes O$. W. T. van Est (Utrecht).

Smw

ROZENFEL'D, B.A.)

Mathematical works of Jamshīd ibn Mas'ūd al-Kāshī. Uch. zap. AGU
no. 5:3-20 '57. (MIRA 11:1)

(Al-Kāshī, Jamshīd Ibn Mas'ūd, d.ca.1436)
(Mathematics---Early works to 1800)

ROZENFEL'D, B.A.

Geometric transformations in the works of Leonhard Euler. Ist.-mat. issl.
no.10:371-422 '57. (MIRA 11:1)

(Geometry--Early works to 1800)

MUSTAFIN, Kh.A.; ROZENFEL'D, B.A.; ROMANOV, N.P.; SABIROV, M.A.

"Analytic geometry for pedagogic institutes" by T.N. Kary-Nilazov.
Usp.mat.nauk 12 no.2(74):247-252 Mr-Apr '57. (MLRA 10:7)
(Geometry, Analytic--Study and teaching)
(Kary-Nilazov, T.N.)

SUBJECT USSR/MATHEMATICS/Geometry CARD 1/1 PG - 952
AUTHOR ROZENFEL'D B.A.
TITLE On the theory of symmetric spaces of rank 1.
PERIODICAL Mat.Sbornik,n.Ser. 41, 373-380 (1957)
reviewed 7/1957

Starting from the fact (cf. Cartan, Ann.Sci.Ec.Norm.Sup.(3), 44, 345-467 (1927)) that all compact symmetric spaces with simple fundamental groups are given by the factor groups of five compact simple groups with respect to their subgroups, with algebraic means the author proves the results obtained by Shirokov in the preceding paper (Mat.Sbornik,n.Ser. 41, 361-372 (1957)). They are valid generally for all compact symmetric spaces of rank 1 with simple fundamental groups.

INSTITUTION: Moscow.

Rozentfel'd, B. A.

AUTHOR: NORDEN, A.P., ROZENFEL'D, B.A., YAGLOM, I.M. 42-1-10/13
TITLE: Petr Konstantinovich Rashevskiy (On the Occasion of his 50th
Birthday) (Petr Konstantinovich Rashevskiy (k pyatidesyatiletuyu
so dnya rozhdeniya))
PERIODICAL: Uspekhi Matematicheskikh Nauk, 1958, Vol.13, Nr.1, pp.225-231 (USSR)
ABSTRACT: The present paper contains a biographical sketch and a
detailed representation of the scientific activity of the
well-known Russian geometer who worked chiefly on generalized
spaces of constant curvature. There is a list of publications
with 58 numbers and a photo of Rashevskiy.

AVAILABLE: Library of Congress
Card 1/1 1. Biography 2. Scientific reports

ROZENFEL'D, B.A.

Geometric interpretation of symmetric spaces with simple fundamental groups. Dokl.AN SSSR 110 no.1:23-26 S-O '56. (MLRA 9:11)

1. Kolomenskiy pedagogicheskiy institut. Predstavleno akademikom P.S.Aleksandrovym.

(Spaces, Generalized) (Groups, Theory of)

ROZENFEL'D, B.A.

Rectangular matrices and non-Euclidean geometries. Usp.mat.nauk

13 no.6:21-48 N-D '58.

(MIRA 12:2)

(Matrices)

(Geometry, Non-Euclidean)

YAGLOM, I.M.; ROZENFEL'D, B.A.; YASINSKAYA, Ye.N.

Projective metrics. Usp. mat. nauk 19 no.5:51-113 S-O '64.
(MIRA 17:11)

ROZENFELD, Bronisław; WESOŁOWSKI, Jan

Influence of strong magnetic field on the directional distribution of photons from two-quantum annihilation in titanium. Nukleonika 9 no. 6:427-437 '64.

1. Institute of Experimental Physics, University, Wrocław.

ACCESSION NR: AP4045473

P/0046/64/009/006/0427/0437

AUTHOR: Rozenfeld, Bronislaw (Rozenfel'd, B.); Wesolowski, Jan (Vesolovski, Ya.) B

TITLE: Influence of a strong magnetic field on the directional distribution of photons from two-quantum annihilation in titanium

SOURCE: Nucleonika, v. 9, no. 6, 1964, 427-437

TOPIC TAGS: positron electron annihilation, positronium atom, two quantum annihilation, two photon annihilation, two photon annihilation radiation

ABSTRACT: The directional distribution of gamma radiation resulting from two-photon positron annihilation in titanium was investigated with and without an external 22-kgs magnetic field. Comparison of distribution curves shows that in the presence of a magnetic field the rate of two-photon annihilations increases in the region of small angular deflections of quanta from collinearity, which produces a "narrow component." Under the assumption that the narrow component arises from the annihilation of singlet positronium, the

Card 1/2

ACCESSION NR: AP4045473

relative increase of two-photon events in the region of small angles can be interpreted as an increase of the amount of parapositronium brought about by the magnetically induced ortho-para conversion. The momentum of the system arising from the ortho-para conversion appears to be smaller than the momentum of the remaining pairs of the singlet state. The mean energy at the time of annihilation of nonconversion parapositronium is not greater than 0.3 ev, which corresponds to angles of about ± 1 mrad in the directional distribution. The relative increase of two-photon annihilation in a magnetic field can be regarded as evidence that the bound electron-positron system, positronium, is formed in titanium. Orig. art. has: 6 figures and 10 formulas.

ASSOCIATION: Institute of Experimental Physics, Boleslaw Bierut University, Wroclaw

SUBMITTED: 7Nov63

ATD PRESS: 21103

ENCL: 00

SUB CODE: NP, IE

NO REF SOV: 003

OTHER: 018

Card 2/2

ROZENFEL'D, B.A. (Moskva); KARPOVA, L.M. (Moskva)

Symmetric semi-Riemannian spaces. Izv.vys.ucheb. zav.; mat.
no. 1:100-116 '64. (MIRA 17:5)

ROZENFEL'D, B.A.; YEZHOVA-GUSEVA, L.M.; NAZAROVA, T.A.

Metric i variants of planes in hyperspaces. Uch. zap. MGPI
no.208:276-287 '63. (MIRA 17:6)

ROZENFEL'D, B.A.

"An introduction to projective geometry" by R.M. Winger.
Reviewed by B.A. Rozenfel'd. Zhur. vych. mat. i mat. fiz. 3
no.4:794-795 J1-Ag '63. (MIRA 16:7)

ROZENFEL'D, B.A.

"Course in differential geometry" by M.A. Sabirov and A. IA. IUsupov.
Reviewed by B.A. Rozenfel'd. Nauch. trudy TashGU no.208. Mat.
nauki. no.23:187-190 '62. (MIRA 16:8)

(Geometry, Differential) (Sabirov, M.A.) (IUsupov, A.IA.)

ROZENFEL'D, B.A. [translator]

Book on the proof of Euclid's famous postulate, belonging to
Thābit ibn Qurrah al-Harrānī. Ist. mat. issl. no.14:593-597 '61.
(MIRA 16:10)

(Euclid's elements)
(Thābit ibn Qurrah al-Harrānī, 830-901)

ROZENFEL'D, B.A.

"Geometry of complex numbers" by H.Schwerdtfeger. Reviewed
by B.A.Rozenfel'd. Zhur.vych.mat.i mat.fiz. 2 no.4:726-727
Jl-Ag '62. (MIRA 15:8)
(Numbers, Complex) (Geometry, Analytic) (Schwerdtfeger, H.)

ARKHIMED [Archimedes]; VESELOVSKIY, I.N. [translator]; ROZENFEL'D,
B.A. [translator]; VYGODSKIY, M.Ya., retsenzent; ZUBOV, V.P.,
retsenzent; CHERNYSHEVA, L.Yu., red.; KOLESNIKOVA, A.P.,
tekhn. red.; MURASHEVA, N.Ya., tekhn. red.

[Works] Sochineniia. Vstup. stat'ia i kommentarii I.N. Veselov-
skogo. Moskva, Gos.izd-vo fiziko-matem. lit-ry, 1962. 639 p.
(MIRA 16:1)

(Archimedes)

ROZENFEL'D, B.A.

"Lectures on tensor calculus and differential geometry" by
J.C.H.Gerretsen. Reviewed by B.A.Rozenfel'd. Zhur.vych.mat.i
mat.fiz. 2 no.6:1146-1147 N-D '62. (MIRA 15:11)
(Calculus of tensors) (Geometry, Differential) (Gerretsen, J.C.H.)

ROZENFEL'D, B.A.; KLIMANOVA, T.M.; PETSKO, N.D.

Projective vector theory. Part 1. Izv.vys.ucheb.zav.; mat.
no.2:130-141 '62. (MIRA 15:8)

1. Kolomenskiy gosudarstvennyy pedagogicheskiy institut.
(Geometry, Non-Euclidean)

ROZENFEL'D, B.A.; YUSHKEVICH, A.P.

Some problems in the history of science discussed at the 25th
International Congress of Oriental Studies. Vop.ist.est. i tekhn.
no.11:179-180 '61. (MIRA 14:11)

(Oriental studies)
(Science)

ROZENFEL'D, B.A.; KLIMANOVA, T.M.; PETSKO, B.D.

Projective vector theory. Part 2. Izv. vys. ucheb. zav.;
mat. no.3:122-130 '62. (MIRA 15:9)

1. Kolomenskiy gosudarstvennyy pedagogicheskiy institut.
(Vector analysis)

ROZENFEL'D, B.A.

"Projective and Euclidean geometry" [in English] by W.T.Fishback.

Reviewed by B.A.Rozenfel'd. Zhur. vych. mat. i mat. fiz. 3
no.3:608 My-Je '63. (MIRA 16:5)

(Geometry) (Fishback, W.T.)

ROZENFEL'D, B.A.

Images of simplicity and semisimplicity. Trudy Sem. po vekt.
i tenz. anal. no. 12:269-285 '63. (MIRA 16:6)
(Groups, Theory of)

YUSHKEVICH, A.P.; ROZENFEL'D, B.A.

Mathematics in Oriental countries during the Middle Ages. Iz ist.
nauki i tekhn. v stran. Vost. no.1:349-421 '60. (MIRA 14:8)
(East--Mathematics)

KOL'MAN, E.; YUSHKEVICH, Adol'f Pavlovich; ROZENFEL'D, B.A., otv.
red.; UGAROVA, N.A., red.; POLOVINKIN, S.M., red.;
AKHLAMOV, S.N., tekhn.red.

[Mathematics before the Renaissance] Matematika do epokhi Voz-
rozhdeniia. Moskva, Gos. izd-vo fiziko-matem. lit-ry.
Book 2. [History of mathematics in the Middle Ages] Istoriia
matematiki v Srednie veka. 1961. 448 p. (MIRA 15:3)
(Mathematics)

NASIR AD-DIN AT-TUSI [Nasir al-Din al-Tusi]; ROZENFEL'D, B.A.
[translator]

Treatise which dispels any doubts with regard to parallel
lines. Ist.-mat. issl. no.13:483-524 '60. (MIRA 14:8)
(Parallels (Geometry))

ROZENTEL'D, B.A.; YUSHKEVICH, A.P.

Comments on Kasi-sade al-Rumi's treatise on the determination
of the sine of one degree of arc. Ist.-mat. issl. no.13:533-
538 '60. (MIRA 14:8)

(Circle)

KAZI-ZADE AR-RUMI [Kasi-sade al-Rumi]; ROZENFEL'D, B.A. [translator]

Treatise on the determination of the sine of one degree of
arc. Ist.-mat. issl. no.13:539-552 '60. (MIRA 14:8)
(Circle)

ROZENFELD, B.A.; YUSHKEVICH, A.P.

Remarks on Kasi-sade al-Rumi's treatise. Ist.-mat. issl. no.13:552-
556 '60. (MIRA 14:8)

(Circle)

KOL'MAN, Ernest; YUSHKEVICH, A.P.; ROZENFELD, B.A., otv. red.;
UGAROVA, N.A., red.; KOPYLOVA, A.N., red.; BRUDNO, K.F.,
tekhn. red.

[Mathematics before the Renaissance] Matematika do epokhi Voz-
rozhdeniia. Moskva, Gos.izd-vo fiziko-matem. lit-ry. Book 1.
[History of mathematics in antiquity] Istoriia matematiki v drev-
nosti. 1961. 235 p. (MIRA 15:2)

(Mathematics, Ancient)

ROZENFEL'D, B.A.

"History of analytical geometry" by Carl B. Boyer. Reviewed by
B.A. Rozenfel'd. Vop. ist. est. i tekhn. no. 8:165-167 '59.

(MIRA 13:5)

(Geometry, Analytic)

MUT, Yuriy Yur'yevich [Mut, J.] akademik, prof. [1892-1952]; KERES, Kh.P. [Keres, H.]
prof., otv. red.; ROZENFEL'D, B.A., prof., otv. red.; SHEV-
CHENKO, G.N., tekhn. red.

[Lobachevski's geometry treated analytically] Geometriia Lo-
bachevskogo v analiticheskom izlozhenii. Moskva, Izd-vo Akad.
nauk SSSR, 1961. 309 p. (MIRA 14:5)

1. Akademiya nauk Estonskoy SSR (for Mut)
(Geometry, Non-Euclidean)

ROZENFEL'D, B.A.

Attempt of quadratic interpolation made by Aburaikhan Mukhamed
ben-Akhmed Biruni. Ist.-mat. issl. no.12:421-430 '59. (MIRA 13:11)
(Interpolation)

ROZENFEL'D, B.A.; KLIMANOVA, T.M.; PETSKO, N.D.

Equivalent systems of vectors in quasi-elliptical spaces.
Dokl. AN Azerb. SSR 16 no. 6:531-534 '60. (MIRA 13:10)

1. Kolomenskiy pedagogicheskiy institut. Predstavleno
akademikom AN Azerbaydzhanskoy SSR Z.I. Khalilovym.
(Spaces, Gneralized) (Vector analysis)

PETROSYAN, G.B.; ROZENFEL'D, B.A.

Aganis' proof of the fifth postulate of Euclid. Izv. AN Arm. SSR.
Ser. fiz.-mat. nauk 13 no. 1:153-164 '60. (MIRA 13:8)

1. Komissiya po istorii yestestvoznaniya i tekhniki AN Armyanskoy
SSR i 1 Kolomenskiy pedagogicheskiy institut.

(Parallels (Geometry))

(Abu'l Abbas Al-Fadhl Ibn Hatim Al-Narizi)

ROZENFEL'D, B.A., SKORNYAKOV, L.A.

Colloquium on algebraical and topological foundations of geometry held at Utrecht. Usp. mat. nauk 15 no.2:237-244 Mr-Apr '60.
(MIRA 13:9)

(Geometry)

ROZENFEL'D, Boris Abramovich, prof., doktor fiziko-matem.nauk; FAYNBOYM,
I.B., red.; SAVCHENKO, Ye.V., tekhn.red.

[Lobachevskii geometry] Geometriia Lobachevskogo. Moskva, Izd-vo
"Znanie," 1960. 47 p. (Vsesoiuznoe obshchestvo po rasprostrane-
niiu politicheskikh i nauchnykh znani. Ser.9, no.24).

(MIRA 14:1)

(Geometry)

ROZENFEL'D, B.A.

Quasi-elliptic spaces. Trudy Mosk.mat.ob-va 8:49-70 '59.
(MIRA 13:2)

(Spaces, Generalized)

16(0)

2.5

PHASE I BOOK EXPLOITATION

SOV/2960

Moskovskoye matematicheskoye obshchestvo

Trudy, t. 8 (Transactions of the Moscow Mathematical Society, Vol 8) Moscow, Fizmatgiz, 1959. 518 p. Errata slip inserted. 2,050 copies printed.

Ed.: A.F. Lapko; Tech. Ed.: S.S. Gavrilov; Editorial Board:
P.S. Aleksandrov, I.M. Gel'fand, and O.N. Golovin.

PURPOSE: This book is intended for mathematicians and theoretical physicists.

COVERAGE: This book contains a collection of articles by leading Soviet mathematicians on problems in pure and applied mathematics. All articles were written in 1957 and 1958. Among the topics discussed are: analytic - operator functions, function spaces, nonstationary plane flow of a viscous non-compressible liquid, root spaces, products of groups representations, ordinary and partial differential equations, 3rd and 4th order linear equations, homogeneous spaces, spectral theory of operators, and generalized random processes. References accompany each article.

Card 1/3

Transactions of the Moscow Mathematical (Cont.)

SOV/2960

TABLE OF CONTENTS:

Fage, M.K. Integral Representations of Analytic-Operator Functions of One Independent Variable.	3
Rozenfel'd, B.A. Quasielliptic Spaces	49
Ladyzhenskaya, O.A. Solution in the Large of the Cauchy Problem for Non-stationary Plane Flow of a Viscous Non-compressible Liquid	71
Lidskiy, V.B. Conditions for the Completeness of a System of Root Spaces Having Non-self-adjoint Operators With Discrete Spectrum	83
Naymark, M.A. Expansion of the Tensor Product of Irreducible Representations of a Proper Lorentz Group by Irreducible Representations	121
Chechik, V.A. A Study of Systems of Ordinary Differential Equations With Singularity	155
Borovikov, B.A. Fundamental Solutions of Linear Partial Differential Equations With Constant Coefficients	199
Card 2/3	

Transactions of the Moscow Mathematical (Cont.)	SOV/2960	
Kondrat'yev, V.A. On the Variability of the Solutions of Linear Equations of the Third and Fourth Orders		259
Shidlovskiy, A.B. On the Transcendentality and Algebraic Independence of the Values of Certain Functions		283
Gel'fand, I.M., and M.I. Grayev. The Geometry of Homogeneous Spaces, Group Representations in Homogeneous Spaces and Related Problems of Integral Geometry. I		321
Kurosh, A.G. Direct Products in Algebraic Categories		391
Iokhvidov, I.S., and M.G. Kreyn. The Spectral Theory of Operators in Spaces With Indefinite Metric. II		413
Minlos, R.A. Generalized Random Processes and Their Extension up to Measures		497
AVAILABLE: Library of Congress		

Card 3/3

AC/gmp
1-12-60

ROZHENKEL'D, H.A. (Kolomna)

Proof of Euclid's fifth postulate by the medieval mathematicians
Ibn-al-Haitham and Leon Gersonide. Ist.-mat.issl. no.11:733-
742 '58. — (MIRA 12:1)

(Euclid's elements)

KHASAN IBN AL-KHAYSAM [Ibn-al-Haitham]; ROZENFEL'D, B.A. [translator]

Comments on the introduction to Euclid's book "The elements";
excerpt. Ist.-mat.issl. no.11:743-762 '58. (MIRA 12:1)
(Euclid's elements)

ROZENFEL'D, B.A. (Kolomna)

Notes on the proofs of Ibn-al-Haitham and Gersonide. Ist.-
mat.issl. no.11:777-782 '58. (MIRA 12:1)
(Euclid's elements)

16(1) PAGE 1 BOOK REPRODUCTION 807/1968

Moscow, Universitet. Mashinostroyeniye Institut matematiki

Trudy seminar po vektornomu analiz i im prikladnyim i geometrii, subskribe i filitii, 779, 8 (Transactions of the Seminar on Vector and Tensor Analysis and Their Applications to Geometry, Mechanics, and Physics; Br 8) Moscow, Gostekhnizdat, 1959. 449 p. 1,500 copies printed.

Ed. (title page): V.F. Egan, Professor; Ed. (inside book): I.M. Yaglom; Tech. Ed.: E.Ya. Murashova.

PURPOSE: This book is intended for professional mathematicians, especially geometers, and for physicists.

CONTENTS: This book contains some contributions to geometry presented by various leading Soviet mathematicians at the Seminar on Vector and Tensor Analysis, held from January, 1946, to July 1, 1949. Applications to physics and mechanics are not discussed in any detail. However, such articles is significant for its possible applications to physics, especially the three articles by V. F. Vagner. In his

Card 1/5

article, "The Theory of a Complex Manifold," Vagner constructs a general theory of manifolds, which turns out to be a generalization of Riemannian analysis, and demonstrates the operation of the absolute total differentiation, which is important to the applications of variational calculus, for the field of any local differential object. In his article, "The Geometry of a Space with a Hyperbolic Metric as the Theory of a Field of Local Hyperbolic Surfaces," Vagner gives the theory of local hyperbolic surfaces in a complex manifold. Vagner gives the construction of local hyperbolic surfaces in a complex manifold in such a manner that its immediate application to the geometric interpretation of the corresponding variational problem is possible. In this article, "Theory of a Field of Local Hyperbolic Surfaces," Vagner discusses the geometry of a field of local hyperbolic surfaces in an n -dimensional central affine space as well as the theory of a field of local regular $n-1$ dimensional hypersurfaces in $\mathbb{R}_n$ and the application of this theory to rigid mechanical systems with nonlinear connections. The following persons submitted reports to the Seminar which are not contained in the book: A. P. Jordan, V.F. Egan, D.I. Pina, E.E. Yashinsky, B.A. Rosenfeld, P.K. Rastvorov, Ya.S. Dubrov, V.F. Vagner, I.M. Yaglom, A.Ye. Lavashov, V.N. Skrydlov, D.P. Poloskov, M.G. Freydis, A.A. Keller, O.S. Gurevich, A.M. Lopashits, N.F. Yefimov, I.P. Iegorov, and Yu.A. Surikov.

TABLE OF CONTENTS

Transactions of the Seminar (Cont.)		807/1968
Lopashits, A.M. On the Theory of an n -dimensional Surface in an	Euclidean-affine Space of $n+2$ Dimensions	266
Gurevich, O.S. On Certain Affinities Connected With a Trivector of	the Eighth Rank	296
Rastvorov, P.K. On a Pair of Connections on n -dimensional Surfaces	is a $2n$ -dimensional Fibred Space	301
Debravskiy, M. On One Realization of a Fibred Space		314
Rosenfeld, B.A. Projective Geometry as Metric Geometry		326
Gurevich, O.S. Reduction of a Pair of Vectors to Canonical Form		355
Yaglom, I.M. Quadratic and Shear-Symmetric Bilinear Forms in Real	Simplectic Space	369
Freydis, M.G. Classification of Continuous Pseudogroups of Lie	Transformations in $\mathbb{R}_n$ According to Their Characteristic Objects	382

Card 2/5

ROZENFEL'D, D.B.; GOLUBINSKAYA, K.P.; ZHURAVLEVA, N.M.; SEMENOVA, I.P.;
RYURIKOVA, L.N.; GUL'DYASHEVA, T.A.

Rapid laboratory diagnosis of colienteritis with the use of TTC
bouillon. Lab. delo 10 no.4:234-236 '64. (MIRA 17:5)

1. Sanitarno-bakteriologicheskiye laboratorii sanitarno-epidemiolo-
gicheskikh stantsiy Podol'ska, Noginska, Klina, Zagorska, Pushkino
Moskovskoy oblasti.

ROZENFELD, B.A.

ROZENFELD, B.A.

16(1) PHASE I BOOK EXPLOITATION SOV/1366

Istoriko-matematicheskiye issledovaniya, vyp. 11 (Research in Mathematical History, Nr 11) Moscow, Fizmatgiz, 1958. 792 p. 3,000 copies printed.

Eds. (Title page): Rytkin, G.F. and Yushkevich, A.P.; Ed. (Inside book): Konoplyankin, A.A.; Tech. Ed.: Murashova, N. Ya.

PURPOSE: This book is intended for mathematicians and others interested in the history of mathematics, and may serve as the basis for a suitable university text on the history of mathematics, thereby filling the most serious gap in Soviet mathematical literature.

COVERAGE: This book contains reports made by members of the section on the history of mathematics at the Third All-Union Mathematical Congress which discussed problems of the history of mathematics and various articles on the significance of the history of mathematics

Card 1/8

Rozenfel'd, B. A. (Kolonna). Proofs of Euclid's Fifth Postulate by the Medieval Mathematicians ibn al-Haitam and Levi ben Gerson

733

ROZENFELD, B.A.

KOLMAN, E

14

16(1) PHASE I BOOK EXPLOITATION SOV/1366

Istoriko-matematicheskiye issledovaniya, vyp. 11 (Research in Mathematical History, Nr 11) Moscow, Fizmatgiz, 1958. 792 p. 3,000 copies printed.

Eds. (Title page): Rybkin, O.P. and Yushkevich, A.P.; Ed. (Inside book): Konoplyankin, A.A.; Tech. Ed.: Murashova, N. Ya.

PURPOSE: This book is intended for mathematicians and others interested in the history of mathematics, and may serve as the basis for a suitable university text on the history of mathematics, thereby filling the most serious gap in Soviet mathematical literature.

COVERAGE: This book contains reports made by members of the section on the history of mathematics at the Third All-Union Mathematical Congress which discussed problems of the history of mathematics and various articles on the significance of the history of mathematics.

Card 1/8

Rosenfeld, B. A. (Kolonna). Comments on the Proofs
by Ibn-al-Haitam and Levi ben Gerson

777

AUTHOR: Rozenfel'd, B.A.

SOV/42-13-6-2/33

TITLE: — ~~Rectangular~~ Matrices and Non-Euclidean Geometries
(Pryamougol'nyye matritsy i neyevklidovy geometrii)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 6, pp 21-48 (USSR)

ABSTRACT: The paper contains a systematic representation of the application of rectangular matrices and their broken-linear transformations in the projective and non-Euclidean geometry. The advantage of this method consists in the possibility of an intuitive geometric interpretation. The method was used already in papers of Siegel, Hua Lu -keng and Grayev. The present paper was written at the suggestion of I.M.Gel'fand. No new results are given. There are 18 references, 7 of which are Soviet, 6 American, 3 German, 1 Italian, and 1 English.

Card 1/1

ROZENFEL'D, B.A.

~~Omar Khayyam's mathematical works.~~ Uch.zap.AGU no.9:3-22 '57.
(MIRA 11:11)

(Omar Khayyam) (Mathematics--Early works to 1800)

LEONOV, Nikolay Ivanovich, prof.; ROZENFEL'D, B.A., red.; RAKHLIN, I.Ye.,
red.; KRYUCHKOVA, V.N., tekhn.red.

[Scientific achievements of Samarkand astronomers in the 15th
century] Nauchnyi podvig Samarkandskikh astronomov XV v.
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 117 p.

(MIRA 14:3)

(Ulugh Beg Ibn Shahrukh, Mirza, 1394-1449)
(Astronomy, Arabic)

ROZENFELD, B. Ye.
CA

23

Laminated cellulose films. B. B. Rozenfel'd and N. P. Krasnikov. U.S.S.R. 64,804, May 31, 1945. Sheets of regenerated cellulose are coated with a mixt. of an adhesive (gelatin, dextrin, etc.) and a plasticizer, pressed with a rubber roll to remove air bubbles and excess liquid, and uniformly stretched on a special table, where they are dried in a current of air at 40-50°. M. Hosh

PROCESSES AND PROPERTIES INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGIONAL INDEX

ROZENFEL'D, B. YE.

PA 3/50T25

USSR/Engineering - Locomotive, Electric. Jul. 49
Motors, Condenser

"AC Mining Electric Locomotive With Condenser.
Motors," Prof B. Ye. Rozenfel'd, Dr Tech Sci,
M. I. Kraytsberg, Cand Tech Sci, B. N. Tekhmanev,
Engr, Moscow Power Eng Inst imeni Molotov, 6 pp

"Elektrichestvo" No 7

Discusses deficiencies in widely used DC system of
haulage with electric mining locomotives and dif-
ficulties in converting to AC. Presents advantages
of converting to AC and using condenser motors.
Points out possibility of using such a system in
other branches of the national economy.

3/50T25

ROZENFEL'D, D.B.

Organization of laboratory work at a sanitary epidemiological station. Zdrav. Ros. Feder. 7 no.5:3-7 My'63
(MIRA 16:6)

1. Iz ob'yedinennoy laboratorii Podol'skoy gorodskoy i rayonnoy sanitarno-epidemiologicheskoy stantsii.
(PUBLIC HEALTH LABORATORIES)

ROZENFEL'D, D.B.

Use of the TTC bptillpn in rapid laboratory diagnosis of coli
enteritis. Zhur.mikrobiol.epid.i immun. 32 no.2:66-70 F '61.
(MIRA 14:6)

1. Iz Podol'skoy rayonnoy sanitarno-epidemiologicheskoy stantsii.
(ESCHERICHIA COLI)

AUTHORS: Rozenfel'd, L. (Professor), Kharitonov, V., Onosovskiy, V.,
Manuylo, N., Zhebenko, A., and Bakallo, N. (Engineers).
66-2-2/22

TITLE: Investigation of the refrigeration equipment of the refrigerator ship, "Aktyubinsk". (Ispytaniye kholodil'nogo oborudovaniya refrizheratornogo sudna "Aktyubinsk").

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering), 1957, No.2, pp.6 - 10 (USSR).

ABSTRACT: The results are described of tests of a refrigerated Diesel-electric ship, carried out by the Chair of Refrigeration Machinery of the Leningrad Technological Institute in cooperation with the team of a Baltic plant. The refrigeration machinery was designed by the Central Refrigeration Machinery Design Office and manufactured by the Moscow "Compressor" Works. The "Aktyubinsk" has a displacement of 10 250 tons and is one of a larger series of refrigerator vessels. It has 5 refrigerated holds and 5 refrigerated 'tween decks of a useful volume of 6700 m³, enabling transportation of 2700 tons of frozen or 3350 tons of chilled fish. The refrigerated holds and 'tween decks are subdivided into a fore and an aft group, each of which can operate at differing temperatures. The cooling of the holds and the 'tween decks is effected by a solution of calcium chloride. In single stage operation a temperature of -6 C

Card 1/3

Investigation of the refrigeration equipment of the refrigerator ship, "Aktyubinsk". (Cont.) 66-2-2/22

can be maintained in the holds and in the 'tween decks whilst in 2-stage operation a temperature of -18°C can be maintained so that it is possible to maintain a temperature of -6°C in one group of chambers and 'tween decks and a temperature of -18°C in the other group'. The characteristics of the refrigeration machinery were established at the test stand of the "Compressor" works and have been described in an earlier paper (1). The results of the tests of the refrigerator ship are discussed and summarised in 2 tables. During the tests the entire refrigeration equipment operated satisfactorily, the insulation of the refrigerated holds and 'tween decks is of good quality and operated satisfactorily. The adopted 2-stage system is very simple in operation but the author considers it advisable to develop a circuit with an intermediate steam extraction applicable for marine use and to compare the respective technical and economic indices. To gain a clearer picture on the correct selection of the type of refrigeration machinery the applied 2-stage set MXM-ADC-150 should be compared with a high r.p.m. multi cylinder compressor, both stages being in a single unit. For marine conditions it may be of interest

Card 2/3

Investigation of the refrigeration equipment of the
refrigerator ship, "Aktyubinsk". (Cont.) 66-2-2/22

to use a rotational compressor as a booster compressor of
the lower stage. A number of slight inadequacies revealed
during the tests should be eliminated and further control
and metering instruments should be installed.

There are 3 figures, 2 tables and 1 Slavic reference.

AVAILABLE:

Card 3/3

^Z
ROZENFELD, D.I. AND PETROVA A.N.

3968. Rozenfel'd D.I. and Petrova A. N. Transformation of muscle phosphorylas b into phosphorylas a Doklady Akad. Nauk S.S.S.R. 1950, 74 (545-547)

Transformation of phosphorylas b into a occurs in alkaline medium; thus autolysed muscle extracts containing phosphorylas b, activated by adenylic acid, upon adjustment of pH to 8.5-8.7 reveal properties of a form which is activated by cysteine. The effect was very pronounced after 22 days' storage in a refrigerator, when almost all b activity was transformed into a activity.
Kosolapoff - (Chemical Abstracts)

SO. Excerpta Medica Section II Volume 4 Number 8

ROZENFEL'D, D.N.

[Machine accounting in tramway depots] Mekhanizirovannyi uchet
v tramvainom depo. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1957.
82 p. (MIRA 12:12)

(Street railways--Accounting)
(Machine accounting)

1ST AND 2ND CODERS										3RD AND 4TH CODERS									
1ST AND 2ND CODERS										3RD AND 4TH CODERS									
ROZENFELD, E. B. ca Strengthening blue tones in photographs. E. B. Rozenfel'd. Russ. 34,920, May 31, 1939. The developed image is bleached with a soln. of hyposulfite and toned again with the iron salt after washing.																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										SIGNATURE									
1ST AND 2ND CODERS										3RD AND 4TH CODERS									
1ST AND 2ND CODERS										3RD AND 4TH CODERS									

1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
ROZENFELD, E.B.																										5																									
PROCESSES AND PROPERTIES INDEX																																																			
Clearing bath for uranium- and iron-toned images. E. B. Rozenfeld. Russ. 57,107, May 31, 1940. The clearing bath contains thiosulfate, $K_2C_2O_8$, and $NaHSO_4$.																																																			
458-55A METALLURGICAL LITERATURE CLASSIFICATION																																																			
E-27																																																			
1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									

1ST AND 2ND CROSS																				3RD AND 4TH CROSS																			
PROCESSING AND PROPERTIES INDEX																																							
ROZENFELD, E. B.																				10																			
Condensation of 2,2-dimethyldivinyl ketone with diene hydrocarbons. I. A. A. Petrov and E. B. Rozenfeld (Tashkent Aviation Inst., Tashkent). <i>J. Gen. Chem. (U.S.S.R.)</i> 16, 1401-4 (1940) (in Russian). -- On heating 15 g. 2,2-dimethyldivinyl ketone (I) with 12 g. $\text{C}_6\text{H}_5\text{CH}=\text{CH}_2$ in the presence of 0.1 g. hydroquinone in a sealed tube at 110-15° 10 hrs., 15.5 g. (70%) condensation product (II), $\text{C}_{11}\text{H}_{16}\text{O}$, was obtained as a colorless liquid, b_p 125°, d_4^{20} 0.8492, n_D^{20} 1.5022, insol. in water; 3.3 g. in 10 ml. water, oxidized at 5-10° with 15 g. KMnO_4 and distd., yielded 0.5 g. (60%) Me_2CO. It is therefore 2,2-dimethyldivinyl 3-cyclohexenyl ketone, and it follows that condensation does not occur at the CH_2CHMe link. In the absence of hydroquinone, a considerable amt. of polymers is formed. Heating 5 g. I under the same conditions with the equiv. amt. of piperylene, $\text{C}_{11}\text{H}_{16}\text{CH}=\text{CHMe}$, gave 4.5 g. (60%) of a condensation product, $\text{C}_{11}\text{H}_{16}\text{O}$, b_p 120-30.5°, d_4^{20} 0.9397, n_D^{20} 1.4900, also yielding Me_2CO on oxidation with KMnO_4; by reason of the stronger negativity of the 5th C atom of piperylene, as compared with the 2nd, the product is considered to be the 2-methyl-3-cyclohexenyl analog of II. Heating I with 15 g. of a fraction contg. 76% $\text{MeCH}=\text{CHCH}=\text{CHMe}$ gave 11.5 g. (70%) of the 2,5-dimethyl-3-cyclohexenyl analog of II, $\text{C}_{11}\text{H}_{16}\text{O}$, b_p 130°, d_4^{20} 0.8381, n_D^{20} 1.5002. N. Thon																				ASB-35A METALLURGICAL LITERATURE CLASSIFICATION																			
SEARCHED SERIALIZED INDEXED																				FILED																			
APR 1941																				APR 1941																			

ROZENTAL'D, F.R.; ZHUROV, V.N.; IAZANOV, P.H. (Moskva)

Use of X-ray television equipment in surgery. Eksper. khir. i
anest. 9 no.4:3-6 JI-ag '64. (MIRA 18:3)

ROZENFELD, E. B.

ROZENFELD, E. B.

"On the Condensation of B,B-dimethyldivinylketone with the Diene Hydrocarbons. 1."
by A. A. Petrov and E. B. Rosenfield. (p. 1404)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1940, Volume 16, No. 8

Chem. Lab., Tashkent Aviation Inst.

Category : USSR/Optics - Photometry, colorimetry, and illumination engineering K-10

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2606

Author : *Rozenfel'd, E.B., **Gerchikov, B.A., **Rusakova, N.P.

Inst : *All-Union Sci. Res. Inst. for Medical Equipment; Plant for Daylight Bulbs, USSR

Title : Luminescent Bulbs for Shadowless Surgical Fixtures

Orig Pub : Materialy po obmenu peredov. opytom i nauch. dostizh. v med. promyslennosti,
1955, No 5, 37-41

Abstract : A special type of luminescent bulb was developed to satisfy the specific color-emission requirements in operating rooms. The bulbs were checked for stability of properties at temperatures of 20-80 degrees, were tested in practice, and were approved.

Card : 1/1

VASHCHENKO, A.I.; ROZENFEL'D, E.I.

Calculating heat exchange in furnaces with radiant tubes. Izv. vys. ucheb.
zav.; chern. met. 8 no.7:180-187 '65. (MIRA 18:7)

1. Moskovskiy vecherniy metallurgicheskiy institut.

LEVTOV, M.R.; PUCHKOV, M.V.; PONOMAREV, A.N.; ROZENFEL'D, F.A.

Unit for local electric heating of viscous petroleum products in distribution reservoirs. Transp. i khran. nefti i nefteprod. no.11:26-27 '64.
(MIRA 18:1)

1. Leningradskiy filial Spetsial'nogo konstruktorskogo byuro "Transneft'-avtomatika".

ROZENFEL'D, F. A.

Dredger pumps. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1953.
243 p. (54-41081)

TC188.R6

1. Dredging machinery.

ROZENFELD, F. A.

Zemlesosnye snariady (Hydraulic pipeline dredges) Moskva, Mashgiz, 1953. 244 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 6, Sep. 1954

RAVINSKIY, Leonid Mikhaylovich; ROZENFEL'D, F.A., kandidat tekhnicheskikh nauk, retsenzent; SHKUNDIN, B.M., inzhener, laureat Stalinskoy premii, redaktor; UVAROVA, A.F., tekhnicheskiiy redaktor

[Use of the suction dredge apparatus 1000-80 in the construction of the Kakhov hydroelectric power station] Opyt raboty zemlesosnogo snariada 1000-80 na stroitel'stve Kakhovskoi GES. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 52 p. (MLRA 9:9)
(Kakhov Hydroelectric Power Station)
(Dredging machinery)

POKROVSKIY, S. A., prof., stv. red.; POZDOLY, A. I., prof., red.;
PETROVA, I. S., st. nauchn. sotr., red.; PASECHNIK, F. I.,
st. nauchn. sotr., red.; SUSLOVA, O. Ya., dokt. med.
nauk., red.; ROZENFELD, G. I., dokt., red.

[Problems in the X-ray diagnosis of diseases of the organs
of the abdominal cavity] Voprosy rentgenodiagnostiki za-
bolevaniy organov brjušnoi polosti. Kiev, Zdorov'ia,
1965. 178 p. (MIRA 18:9)

1. Kiyevskiy nauchno-issledovatel'skiy rentgenoradiologi-
cheskiy i onkologicheskii institut.

ROSHCHIN, G. I.

ROSHCHIN, G. I.: "Material on the X-ray diagnosis of diseases of the small intestine." Kiev, 1955. Khar'kov Medical Inst. Chair of Roentgenology, Kiev Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate of Medical Sciences)

30: Knizhnaya Letopis' No. 17, 19 November 1955. Moscow.

ROZENFELD, G. I.

ROZENFELD, G. I.: "Material on the X-ray diagnosis of diseases of the small intestine." Kiev, 1955. Khar'kov Medical Inst. Chair of Roentgenology, Kiev Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate of Medical Sciences)

SC: Knizhnaya Letopis' No. 47, 19 November 1955. Moscow.

ROZENFEL'D, G.S.; ROSTOV'TSEVA, L.I.; BAYKINA, V.M.; TRAKHTENBERG, D.M.
KHOKHLOV, A.S.. Prinimali uchastiye: LOKSHIN G.B.

Albonursin, a substance accompanying the antibiotics nystatin
and albofungin. Antibiotiki 8 no.3:201-207 Mr'63
(MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov
i Institut khimii prirodnikh so'yedineniy AN SSSR.

KHOKHLOV, A.S.; ROZENFEL'D, G.S.

Isolation and primary chemical purification of the antibiotic albo-
fungin. Antibiotiki 4 no.6:10-13 N-D '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i
Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.
(ANTIBIOTICS chem.)

RUDAYA, S.M.; SOLOV'YEVA, N.K.; ROZENFEL'D, G.S.; KHOKHLOV, A.S.
BYCHKOVA, M.M.

Formation, isolation and primary chemical purification of
antibiotic no. 660-15, related to albofungin. Antibiotiki
8 no.2:99-103 F'63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibioti-
kov i Institut khimii prirodnikh soyedineniy AN SSSR.
(ANTIBIOTICS) (FUNGICIDES)

ROZENFEL'D, G.Z., inzh.

Work performed by the small offices of industrial construction
and design. Bum.prom. 35 no.10:16 0 '60. (MIRA 13:10)
(Paper industry—Equipment and supplies)

ROZENFEL'D, G.Z., inzh.

Analysis of the effectiveness and production capacity
of papermaking machines. Bum.prom. 35 no.1:24-26
Ja '60. (MIRA 13:6)

(Papermaking machinery)